

CLAIMS

2 What is claimed is:

- 4 *Sub a'7* 1. An apparatus for packaging goods in a box, comprising:
- 6 (a) a box erecting apparatus for erecting a box to receive at least one
good; and
- 8 (b) an elevator lift apparatus operatively connected below the box
erecting apparatus, such that the elevator lift apparatus is positioned to lift at least one
good into the erected box.
- 10 2. The apparatus of claim 1, wherein the box is an open-bottomed box.
- 12 3. The apparatus of claim 2, wherein the box is a cardboard box.
- 14 4. The apparatus of claim 2, further comprising a finishing apparatus for
sealing the open-bottomed box, wherein the finishing apparatus is operatively
connected to the box erecting apparatus.
- 16 5. The apparatus of claim 4, further comprising a magazine for storing
open-bottomed boxes adapted to be erected by the box erecting apparatus.
- 18 6. The apparatus of claim 5, further comprising a labeling apparatus
operatively connected to the finishing apparatus.
- 20 7. The apparatus of claim 6, further comprising a first conveyor defining
a first conveyor plane positioned to deliver goods to the elevator lift apparatus.
- 22 8. The apparatus of claim 7, further comprising a second conveyor
defining a second conveyor plane positioned to transport the goods through the
finishing and labeling apparatuses.
- 24 9. The apparatus of claim 8, wherein the box erecting apparatus
comprises at least one suction cup.

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10. An apparatus for packaging goods in an open-bottomed container, the
2 apparatus comprising:

(a) an elevator lift apparatus for lifting at least one good through a
4 bottom of the open-bottomed container; and

(b) a support mechanism operatively connected to the elevator lift
6 apparatus for supporting the at least one good in the open-bottomed container.

11. The apparatus of claim 10, wherein the support mechanism further acts
8 as a guide mechanism to funnel the goods into the open-bottomed container.

12. The apparatus of claim 10, further comprising a box erector apparatus
10 to erect an open-bottomed container.

13. The apparatus of claim 12, further comprising:

(a) a closing mechanism operatively attached to the elevator lift
12 apparatus for closing a top portion of the open-bottomed container; and

(b) a finishing apparatus operatively attached to the closing
14 mechanism for sealing a top portion of the open-bottomed container.

16 14. The apparatus of claim 13, wherein the support mechanism for the box
comprises a first and second support mechanism.

18 15. The apparatus of claim 14, further comprising a first conveyer,
operatively connected to the elevator lift apparatus, the first conveyer having a
20 starting end and a finishing end.

22 16. The apparatus of claim 15, further comprising a second conveyer
situated at the finishing end of the first conveyer, the second conveyer positioned on a
second conveyer plane.

24 17. The apparatus of claim 16, the first conveyer belt further comprising a

left belt and a right belt, the left belt and the right belt defining an open space.

2 18. The apparatus of claim 17, wherein the elevator lift apparatus is
operatively connected in the open space of the first conveyor at the finishing end, the
4 elevator lift apparatus having a first position on a plane just lower than the first
conveyer plane and having a second position situated generally level with the second
6 conveyer plane.

 19. The apparatus of claim 18, wherein the second conveyer plane is on a
8 higher level than the first conveyer plane.

 20. The apparatus of claim 19, further comprising a stopping block
10 situated at the finishing end of the first conveyer adapted to stop the goods over the
elevator lift apparatus.

12 21. The apparatus of claim 20, further comprising a pushing mechanism
operatively connected to the first conveyer for pushing the open-bottomed container
14 off of the supporting mechanism onto the second conveyer.

 22. The apparatus of claim 21, further comprising a labeling apparatus
16 operatively connected to the second conveyer.

 23. The apparatus of claim 22, further comprising a guide mechanism
18 operatively connected to the elevator lift apparatus for guiding the goods into the
unfolded open-bottomed container.

20 24. The apparatus of claim 10, the apparatus further comprising a meter
mechanism operatively connected to the elevator lift apparatus situated to count the
22 goods moving from the starting end to the finishing end.

 25. The apparatus of claim 13, wherein the open-bottomed container is a
24 cardboard box.

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26. The apparatus of claim 24, further comprising a cardboard box
4 magazine for storing multiple boxes accessibly positioned to the box erecting
apparatus, the box having a first and second minor flap and a first and second major
6 flap.

27. The apparatus of claim 26, further comprising:

8 (a) a first flap folding mechanism operatively attached to the first
conveyor at the finishing end adapted to fold the first and second minor flaps of the
10 open-bottomed container; and

(b) a second flap folding mechanism operatively attached to the
12 conveyer for folding the first and second major flaps of the open-bottomed container.

28. A method of packaging goods in a box, the method comprising:

14 (a) actuating an elevator lift apparatus to raise the goods into the
box; and

16 (b) supporting the goods in the box after the elevator lift apparatus
is lowered.

18 29. The method of claim 28, further comprising closing a top portion of
the box.

20 30. The method of claim 28, further comprising:

(a) providing the goods to be packaged;

22 (b) placing the goods on an first conveyor; and

(c) moving the goods with a first conveyor to a position over the
24 top of the elevator lift apparatus.

31. The method of claim 28, further comprising counting the goods to
2 confirm the appropriate number.

32. The method of claim 28, wherein the box is an open-bottomed
4 cardboard box.

33. The method of claim 30, further comprising sealing a top portion of the
6 box.

34. The method of claim 33, further comprising:

8 (a) stacking the sealed boxes enclosing the goods onto a palette; and

(b) packaging the stacked open-bottomed containers on the palette.

10 Sub 27/35 A method for packaging goods in an open-bottomed container, wherein
the open-bottomed container is an open-bottomed cardboard box with four upper

12 flaps, comprising:

(a) unfolding the open-bottomed cardboard box;

14 (b) holding the unfolded open-bottomed cardboard box above the
elevator lift apparatus;

16 (c) activating an elevator lift apparatus to raise the goods into the
open-bottomed cardboard box; and

18 (d) folding the four upper flaps of the open-bottomed cardboard
box.

20 36. The method of claim 35, further comprising providing multiple the
open-bottomed containers by a flat folded cardboard open-bottomed container
22 dispensing apparatus.

37. A method for delivering goods comprising transporting goods
- 2 packaged in open-bottomed containers on a palette whereby the goods may be accessed by lifting the open-bottomed container.

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